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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,648	09/09/2003	John D. Morris	5621-P1	3164
49459	7590	11/06/2008		
NALCO COMPANY 1601 W. DIEHL ROAD NAPERVILLE, IL 60563-1198			EXAMINER DESAL, RITA J	
			ART UNIT 1625	PAPER NUMBER
			MAIL DATE 11/06/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/658,648

**Applicant(s)**

MORRIS ET AL.

**Examiner**

Rita J. Desai

**Art Unit**

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 3-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 8/11/08

### **DETAILED ACTION**

Claims 1-32 are pending.

Claims 3-31 have been withdrawn. The rejection under 35 USC 103 1054436 Shenshu, Kasai GB 1003083, Noguchi JP 49-43688 and JP 47-12553 all still stands.

The applicants are arguing that their compounds are capable of free radical polymerization.

The compounds of the prior art also have a free radical and would be capable of free radical polymerization.

The compounds of the prior art have the same substituents and hence the compounds would be obvious. Applicants arguments cannot take place of evidence to indicate that their compounds are superior. There is no side by side comparison. Applicants claims are drawn to compounds not to a method of polymerization.

In the absence of a timely filed declaration showing a side by side comparison for the scope of the compounds claimed closest to the prior art, the obviousness rejection still stands.

The declaration provided would probably hold true for just the example 1 as given in the specification. It does not refer to the full scope of the compounds.

The rejection is being repeated here.

compound. Therefore, the Examiner has argued obviousness. The Applicants infer from the Examiner's rejection that crux of the rejection is based on structural similarity of the compounds and that one of ordinary skill in the art would be motivated to modify the prior art and make the claimed invention. Moreover, Applicants infer from the Examiner's comments that the previous analysis was not persuasive because "the prior art compounds may inherently polymerize" and that the claimed superior property is not convincing because of that fact.

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"A *prima facie* case of obviousness based on structural similarity is rebuttable by proof that the claimed compounds possess unexpectedly advantageous or superior properties." MPEP 2144.09

(citing *In re Papesch*, 315 F.2d 381, 137 USPQ 43 (CCPA 1963)). Contrary to the Examiner's position, the prior art monomers are not polymerizable. Contrary to the prior art, the present invention teaches a composition containing a naphthalimide containing fluorescent moiety that is polymerizable and therefore possesses a superior property over the prior art compounds cited by the

Examiner. Therefore, Applicants contend that the showing of a superior property of the claimed compound rebuts the rejection of obviousness based on structural similarity.

In view of the foregoing, Applicants request that pending claims I, 2 and 32 are allowed.

These arguments are not found to be persuasive at all.

There is nothing that states that applicants claims have unexpected properties,. The property of the compounds being fluorescent is expected from the prior art teaching. (see below).

Regarding applicants statement that the compounds are polymerizable and prior art compounds are not.

The examiner argues that there is nothing in the claim to say they are polymerizable. The claims are drawn to monomers. The compounds are similar in the prior art and inherently would also polymerize.

Senshu 1054436 teaches similar compounds . See formula I . It also clearly teaches that when the substance is dissolved or dispersed in a suitable liquid medium or when applied to a suitable material "emit a distinctive greenish blue fluorescence "

The compounds when dissolved or dispersed in a suitable liquid medium or when applied to a suitable material emit a distinctive greenish blue fluorescence in daylight or ultraviolet rays showing a wide absorption in the ultraviolet range. Further, the compounds generally have good stability and exhibit a good affinity with synthetic organic high molecular weight

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materials. The compounds of formula (I) thus have a durable optical whitening effect on the synthetic materials of high molecular weight .

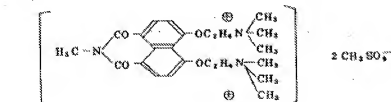
The preferred naphthalimide derivatives include N-alkyl-4-alkylthio-naphthalimides, N - hydroxyalkyl - 4 - alkylthio - naphthalimides, 4 - alkylthionaphthalimides, N - aryl - 4 - alkylthio - naphthalimides, N - (N',N' - dialkylaminoalkyl)-4 - alkylthio - naphthalimides, N - alkyl - 4 - hydroxyalkylthio - naphthalimides, N - alkyl - 4 (N',N' - dialkylamino - alkylthio) - naphthalimides and N - alkyl - 4 - arylthio-naphthalimides. R<sub>1</sub> in the formula (I) may, for example, be a methyl, ethyl, n- or iso-propyl, n- or iso-butyl, n- or iso-pentyl, n- or iso-hexyl, n-octyl, 2-ethylhexyl, n- or iso-dodecyl, or n- or iso-tridecyl group. Further R<sub>1</sub> may be a substituted alkyl group containing a hydroxy, alkoxy, aryl, primary amino secondary amino such as trialkylamino, tertiary amine such as bisalkylamino or quaternary ammonium, such as trialkylammonium, group. Thus R<sub>1</sub> may may, for example, be a hydroxyethyl, hydroxypropyl, hydroxybutyl, methoxyethyl, ethoxyethyl, ethoxypropyl, propoxypropyl, benzyl, aminoethyl, aminopropyl, N,N-dimethylaminoethyl, N,N-dimethylaminopropyl,

Amongst the preferred compounds are the one when R<sub>1</sub> is a quaternary ammonium group.

Thus the scope is very similar and these compounds are also fluorescent.

Kasai GB 1003083, and Noguchi JP 49-43688, and JP 47-12553 . also disclose similar compounds.

See column 5 and 6 of '688.



The use is the same.

Kasai '083 also teaches the same use

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This invention relates to novel naphthalimide compounds which, when applied to off-white materials, absorb ultra-violet light from sunlight or fluorescent light and emit the absorbed energy as blue light, to processes for producing said compounds, and to a method of improving the brightness of polymeric materials by treatment with said compounds.

According to one aspect of the present invention there is provided a series of naphthalimide compounds which can be represented by the general formula:—



wherein R is a lower alkyl group containing from 1 to 8 carbon atoms, or a phenyl group.

In view of the recent KSR v Teleflex the rationales for making obviousness rejections are given by

*Rationales*

(A) Combining prior art elements according to known methods to yield predictable results;

(B) Simple substitution of one known element for another to obtain predictable results;

(C) Use of known technique to improve similar devices (methods, or products) in the same way;

(D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;

(E) "Obvious to try"—choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;

(F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art;

(G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

In this case it would fall within the E as it would be obvious to try with a predictable expectation of success.

***Conclusion***

Claims 1, 2 and 32 stand rejected.

Claims 3-31 are withdrawn.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita J. Desai whose telephone number is 571-272-0684. The examiner can normally be reached on Monday - Friday, flex time..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres can be reached on 571-272-0867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rita J. Desai/  
Primary Examiner, Art Unit 1625

R.D.  
November 3, 2008